

Having thus described the invention, what is claimed as new and secured by Letters Patent is:

1. A method for enabling multiple QoS support over Asynchronous Transfer Mode (ATM) and Ethernet networks comprising:

Identifying a packet according to a first network protocol for servicing;

Determining a QoS metric for the identified packet; and

Based upon the determined QoS metric, servicing the identified packet for transmission in accordance with a second network protocol.
2. A method as claimed in claim 1 wherein the step of determining a QoS metric includes considering Ethernet information.
3. A method as claimed in claim 2 wherein the Ethernet information includes Ethernet port information.
4. A method as claimed in claim 2 wherein the Ethernet information includes virtual local area network identifier (VLAN ID) information.
5. A method as claimed in claim 2 wherein the Ethernet information includes p-bits information.
6. A method as claimed in claim 5 wherein the Ethernet information further includes VLAN ID information.
7. A method as claimed in claim 5 wherein the step of servicing further includes assigning a drop precedence to the packet based on the p-bits information.
8. A method as claimed in claim 1 wherein the step of determining a QoS metric includes considering Upper Layer Protocol (ULP) information.
9. A method as claimed in claim 8 wherein the ULP information includes Internet Protocol (IP) packet information
10. A method as claimed in claim 9 wherein the IP packet information includes Differentiated Services Code Point (DSCP) bit information.
11. A method as claimed in claim 10 wherein the IP packet information further includes VLAN ID information.

12. A method as claimed in claim 10 wherein the step of servicing further includes assigning a drop precedence to the packet the based on the DSCP bit information.
13. A method as claimed in claim 1 wherein the first network protocol is ATM, the second network protocol is Ethernet, and the step of determining a QoS metric includes considering ATM information.
14. A method as claimed in claim 13 wherein the ATM information includes virtual circuit connection information.
15. A method as claimed in claim 13 wherein the step of servicing further includes assigning a drop precedence to the packet based on cell loss priority bit information.
16. A method as claimed in claim 1 wherein the first network protocol is Ethernet and the second network protocol is ATM and the step of servicing includes mapping the packet to a VCC and scheduling the packet for transmission according to a non-interleaving sub-connection scheduling scheme.
17. A method as claimed in claim 1 wherein the first network protocol is Ethernet and the second network protocol is ATM and the step of servicing includes mapping the packet to one of a plurality of VCC's and scheduling the packet for transmission according to a connection scheduling scheme.
18. A method as claimed in claim 1 wherein the first network protocol is Ethernet and the second network protocol is ATM and the step of servicing includes mapping the packet to a virtual path (VP) and scheduling the packet for transmission according to a sub-connection scheduling scheme.
19. A method as claimed in claim 1 wherein the first network protocol is ATM and the second network protocol is Ethernet and the step of servicing includes mapping the packet to an Ethernet port and scheduling the packet for transmission according to a class scheduling scheme.
20. A method as claimed in claim 1 wherein the first network protocol is ATM and the second network protocol is Ethernet and the step of servicing includes mapping the packet to one of a plurality of Ethernet ports and scheduling the packet for transmission according to a basic scheduling scheme.

21. A system for enabling multiple QoS support over ATM and Ethernet networks comprising:
 - an input; and
 - control circuitry associated with the input and adapted to:
 - identify a packet according to a first network protocol for servicing;
 - determine a QoS metric for the identified packet; and
 - based upon the determined QoS metric, service the identified packet for transmission in accordance with a second network protocol.
22. A system as claimed in claim 21 wherein the control circuitry is further adapted to consider Ethernet information to determine a QoS metric.
23. A system as claimed in claim 22 wherein the Ethernet information further includes Ethernet port number information.
24. A system as claimed in claim 22 wherein the Ethernet information further includes VLAN ID information.
25. A system as claimed in claim 22 wherein the Ethernet information further includes p-bits information.
26. A system as claimed in claim 25 wherein the Ethernet information further includes VLAN ID information.
27. A system as claimed in claim 25 wherein the control circuitry is further adapted to assign a drop precedence to the packet based on the p-bits information.
28. A system as claimed in claim 21 wherein the control circuitry is further adapted to consider Upper Layer Protocol (ULP) information to determine a QoS metric.
29. A system as claimed in claim 28 wherein the ULP information includes Internet Protocol (IP) information.
30. A system as claimed in claim 29 wherein the IP information includes Diff-Serv Differentiated Services Code Point (DSCP) bit information.

31. A system as claimed in claim 30 wherein IP information further includes virtual local network identifier (VLAN ID) information.
32. A system as claimed in claim 30 wherein the control circuitry is further adapted to assign a drop precedence to the packet based on the DSCP bit information.
33. A system as claimed in claim 21 wherein the first network protocol is ATM, the second network protocol is Ethernet, and wherein the control circuitry is further adapted to consider ATM information to determine a QoS metric.
34. A system as claimed in claim 33 wherein ATM information includes virtual circuit connection information.
35. A system as claimed in claim 33 wherein the control circuitry is further adapted to assign a drop precedence based on CLP bit information.
36. A system as claimed in claim 21 wherein the first network protocol is Ethernet and the second network protocol is ATM and the control circuitry is further adapted to map the packet to a VCC and schedule the packet for transmission according to a non-interleaving sub-connection scheduling scheme to service the packet.
37. A system as claimed in claim 21 wherein the first network protocol is Ethernet and the second network protocol is ATM and the control circuitry is further adapted to map the packet to one of a plurality of VCC's and schedule the packet for transmission according to a connection scheduling scheme to service the packet.
38. A system as claimed in claim 21 wherein the first network protocol is Ethernet and the second network protocol is ATM and the control circuitry is further adapted to map the packet to a virtual path (VP) and schedule the packet for transmission according to a sub-connection scheduling scheme to service the packet.
39. A system as claimed in claim 21 wherein the first network protocol is ATM and the second network protocol is Ethernet and the control circuitry is further adapted to map the packet to an Ethernet port and schedule the packet for transmission according to a class scheduling scheme to service the packet.
40. A method as claimed in claim 21 wherein the first network protocol is ATM and the second network protocol is Ethernet and the control circuitry is further adapted to map the packet to one of a plurality of

Ethernet ports and schedule the packet for transmission according to a basic scheduling scheme to service the packet.

41. A system as claimed in claim 21 wherein the system is located at an edge of a core network.
42. A system as claimed in claim 21 wherein the system is located in a user element.